

Notice of Allowability

Application No.

10/737,319

Examiner

Eric S. McCall

Applicant(s)

FUJII ET AL.

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application as originally filed on Dec. 16, 2003.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 16 December 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date May 24, 2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

METHOD OF TESTING FRICTION COMPONENTS FOR
AUTOMATIC TRANSMISSIONS

REASONS FOR ALLOWANCE

The following is an Examiner's statement of reasons for allowance:

Claim 1 has been found to be allowable over the prior art because the prior art fails to teach or suggest a method of testing a friction component for an automatic transmission, comprising the combination of:

installing the friction component in a test stand having a drive shaft and a grounding anchor with a first part of the friction component attached to the drive shaft and a second part of the friction component attached to the grounding anchor;

applying an actuation force to an actuator of the friction component at a start time (t_0) to stroke the actuator over a stroke time (t_s) and to apply an engagement force to the friction component at a time t_0+t_s ; and

decoupling the motor drive from the drive shaft at a time $t_0+t_s+t_i$ and allowing the rotating speed of the drive shaft and the sliding speed of the friction component to decrease in response to engagement of the friction component,

in combination with the remaining limitations of said claim.

Claim 9 has been found to be allowable over the prior art because the prior art fails to teach or suggest a method of testing a friction component for an automatic transmission, comprising the combination of:

installing the friction component in a test stand having a drive shaft and a grounding element with a first part of the friction component attached to the drive shaft and a second part of the friction component attached to the grounding element;

applying an actuation force to an actuator of the friction component at a time (t_0); and upon obtaining a predetermined level of torque, the motor torque is reduced to a predetermined level (T_m), upon reduction to T_m the sliding speed of the drive shaft decreases,

in combination with the remaining limitations of said claim.

Claim 11 has been found to be allowable over the prior art because the prior art fails to teach or suggest a system for testing a friction component for an automatic transmission, comprising the combination of:

a friction component installed in the test stand, the friction component having a first part attached to the drive shaft and a second part attached to the grounding portion;

an actuator of the friction component being actuated at a time (t_0) and the actuator having a return mechanism that applies a biasing force to return the friction component to a disengaged condition, causing the friction component to be stroked against the return mechanism during a time (t_s) to apply an engagement force at a time $t_0 + t_s$; and

wherein operation of the motor drive is continued to maintain the speed of rotation of the drive shaft at V_{target} for a period of time corresponding to a target torque phase time (t_t), and decoupling the motor drive from the drive shaft at the end of t_t allowing the rotating speed of the drive shaft and first part of the friction component to decrease in response to engagement of the friction component,

in combination with the remaining limitations of said claim.

The remainder of the claims have been found allowable due to the dependency thereof on one of the above claims.

CONCLUSION

Any comments considered necessary by the Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric S. McCall
Primary Examiner
Art Unit 2855
Feb. 25, 2005